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Title: SECURED AND SELECTIVE RUNTIME AUDITING SERVICES USING A TRUSTED COMPUTING DEVICE

Assignee: Intel Corporation

REMARKS

This responds to the Decision on Pre-Appeal Brief mailed on <u>September 25, 2006</u>. Claims 51-54 have been added. Claims 4-8, 30-33 and 37-54 are now pending in this application. Applicant does not admit that the cited references are prior art and reserves the right to swear behind the cited references at a later date.

§112 Rejection of the Claims

Claim 50 was rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Office indicated that "the phrase 'high-value audit session' renders the claim indefinite because the scope of the term is unclear." The Office further indicated that "the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention." Applicant respectfully traverses this rejection. The phrase "high-value audit session" is sufficiently described to distinctly claim the subject matter at block 468, which is reproduced below:

In block 468, upon determining that storage is available in internal memory of the cryptographic processing module, a determination is made of whether the audit session is considered a high-valued audit session. With reference to the embodiment in Figure 3, the control logic 212 determines whether the audit session is considered a high-valued audit session. An audit session may be considered of high-value based on a number of different criteria. For example, the criteria could include the values of attributes of transactions that occur in the audit session. In one embodiment, the audit session is considered of high-value if a monetary amount of an electronic commerce transaction is above a given limit. The audit session may be considered of high-value if an electronic commerce transaction involving a given entity (for a service provider, etc.) occurs within this session. Upon determining that the audit session is not of high value, control continues at block 470, which is now described. (emphasis added)³

Accordingly, Applicant respectfully requests that the rejection of claim 50 be withdrawn.

¹ Office Action at page 3.

² Office Action at page 3.

³ Application at page 16.

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§103 Rejection of the Claims

Claims 4-6, 8, 30-32, and 37-50 were rejected under 35 USC § 103(a) as being unpatentable over Ogg et al. (U.S. 6,868,406) and further in view of Mayaud (U.S. 2002/0042726). Claims 7 and 33 were rejected under 35 USC § 103(a) as being unpatentable over Ogg and Mayaud and further in view of Scullion et al. (U.S. 4,734,865).

The Examiner has the burden under 35 U.S.C. § 103 to establish a *prima facie* case of obviousness.⁴ To do that the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references.⁵

The *Fine* court stated that:

Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so."

The M.P.E.P. adopts this line of reasoning, stating that

In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.⁷

An invention can be obvious even though the suggestion to combine prior art teachings is not found in a specific reference.⁸ At the same time, however, although it is not necessary that the cited references or prior art specifically suggest making the combination, there must be some

⁴ In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988).

⁵ Id.

⁶ *Id.* (emphasis in original).

⁷ M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

⁸ In re Oetiker, 24 USPQ2d 1443 (Fed. Cir. 1992).

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teaching somewhere which provides the suggestion or motivation to combine prior art teachings and applies that combination to solve the same or similar problem which the claimed invention addresses. One of ordinary skill in the art will be presumed to know of any such teaching.⁹

The Office Action posits several reasons for combining the cited references (Ogg, Mayaud and Scullion). However, the Office Action does not point to a single passage in the references that teaches or suggests the cited combinations. Furthermore, the Office Action has not identified any references supporting its assertions about knowledge of ordinary skill in the art. Therefore, Applicant submits that the Office Action has improperly combined the cited references.

Claims 4-5, 8, 30-31, 37-39, 41-45 and 47-48

The Office has not established a *prima facie* case of obviousness because the cited art does not teach or suggest all of the claim limitations. Among the differences, claim 4 recites "wherein selectively auditing of the number of transactions includes securely storing at least one attribute of selected audited transactions <u>within the wireless computing device</u>." Claim 30 includes a similar limitation. The Office indicated the following:

Ogg does not disclose a wireless computing device. Mayaud discloses saving audit information on a wireless device (p12, 66, 93, claims 30, 35 and 37; fig 16).¹⁰

Applicant respectfully traverses this assertion. Mayaud does not disclose or suggest that audit information is saved on a wireless device. Mayaud is limited to storage of the audit information on the host computer facility 106.

Given the medical, commercial and legal significance of the transactions executed and the data generated by use of the system of the invention described herein, as well as the value of that information to the patient, the physician and many other organizations, maintenance of accurate historical records, or archiving, is desirable, or essential, and preferred embodiments of the invention provide <u>archiving at a host computer facility 106</u>. . .

⁹ (See, e.g., In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) and In re Wood, 599 F.2d 1032, 1037, 202 USPQ 171, 174 (CCPA 1979)).

¹⁰ Office Action at page 4.

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Preferably, the data logged into archives comprise all data relevant to a patient's diagnosis and therapies, data relevant to the user's prescribing activities, including the prescriber's relevant electronic communications ("e-mail") with third parties (pharmacies, laboratories, other health care providers, or potential providers, to the patient, and so on) and access audit data as to parties accessing the patient's or prescriber's personal data. (emphasis added)¹¹

Mayaud further describes the storage of audit information in the host computer facility 206 as follows:

<u>Important functions maintained by the host computer facility 206</u> are information locator databases and advanced directory and routing services, including the following:

- i) a user device and system registry enabling communications to be routed to the target user;
- ii) a patient information directory service enabling access the system to access remote databases to retrieve patient record components for compilation of virtual patient records as described above;
- iii) archiving of transaction logs and records, and of audit logs. . . (emphasis added) $^{12}\,$

Therefore, both cited references disclose storing of an attribute of an audit transaction in a host computer or central database. Neither reference discloses that the data is stored within the wireless device. Therefore, neither reference, alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 4 and 30 under 35 U.S.C. §103 has been overcome. Claims 5, 8, 31, 37-39, 41-45 and 47-48 depend from claims 4 and 30 and distinguish the reference for at least the same reason.

Claims 6 and 32

In addition to the remarks set forth above regarding claims 4 and 30 (from which claims 6 and 32 depend, respectively), Applicant respectfully submits the following remarks. With regard to claim 6 and 32, among the differences, claims 6 and 32 recite "generating a signature of the integrity metric with a signature key that is generated and stored within the computing device."

¹¹ Mayaud at ¶ [0296] – [0298].

¹² Mayaud at ¶ [0318] - [0321].

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In the Response to Arguments, the Office indicated that Ogg discloses "generating a key" at column 2, lines 60-67; column 3, lines 1-6; column 7, lines 29-40; column 15, lines 58-67; column 16, lines 1-4; column 17, lines 61-67 and column 18, lines 1-24. None of these newly cited sections in Ogg disclose or suggest generating of a signature of an integrity metric with a signature key.

Ogg at column 2, lines 60-67 and column 3, lines 1-6 relate to signing of the one or more audit entries. Ogg at column 7, lines 29-40 relate to signing "module status responses. Ogg at column 15, lines 58-67 and column 16, lines 1-4 relates to using a key to authenticate "[e]ach command from a user." Ogg at column 17, lines 61-67 and column 18, lines 1-24 relates to the generation of keys – "All keys are generated using FIPS approved key generation algorithms."

Therefore, neither reference, alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 6 and 32 under 35 U.S.C. §103 has been overcome.

Claims 40 and 46

In addition to the remarks set forth above regarding claims 4 and 30 (from which claims 40 and 46 depend, respectively), Applicant respectfully submits the following remarks. With regard to claim 40 and 46, among the differences, claims 40 and 46 recite "storing the hash and the digital signature in the audit log, after the audit session is closed."

In the Response to Arguments, the Office indicated that claims 40-46 are disclosed by Ogg at column 2, lines 60-67; column 3, lines 1-6; column 41, lines 45-52; column 40, lines 42-52 and claims 1, 13, 29 and 41.

Ogg at column 2, lines 60-67 and column 3, lines 1-6 relate to signing of the one or more audit entries. Ogg at column 41, lines 45-52 relates to generating of a hash for an audit record which is included "in the next generated audit record." Accordingly, this section of Ogg does not disclose or suggest that a hash of an audit log is stored in the current audit log. Moreover, this section does not disclose or suggest that the digital signature is stored in the audit log.

Ogg at column 40, lines 42-52 relates to digitally signing of an audit log. Claims 1 and 29 of Ogg relate to similar subject matter. However, these sections do not disclose or suggest

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that the digital signature is stored in the audit log. Claims 13 and 41 relates to what is stored in an audit entry (not an audit log).

Therefore, neither reference, alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 40 and 46 under 35 U.S.C. §103 has been overcome.

Claims 7 and 33

In addition to the remarks set forth above regarding claims 6 and 32 (from which claims 40 and 46 depend, respectively), Applicant respectfully submits the following remarks. Among the differences, claims 7 and 33 recite "storing a value of the audit counter, the integrity metric and the signature in the audit log."

The Office indicated that this limitation is disclosed in Ogg at column 43, lines 1-27 and columns 31 and 32. Ogg at column 43, lines 1-27 relates to logging a hash into an audit report (not into the audit logs discussed through Ogg). Ogg makes a clear distinction between an audit report and an audit log. Moreover, this citation does not disclose or suggest that the signature or the audit counter is logged at all. Ogg at columns 31 and 32 relate to the contents of a PSD package (not an audit log).

Accordingly, these sections of Ogg do not disclose or suggest storing a value of the audit counter or the signature in the audit log. Therefore, neither reference, alone or in combination, disclose or suggest all of the claim limitations. Accordingly, Applicants respectfully submit that the rejection of claims 7 and 33 under 35 U.S.C. §103 has been overcome.

Claims 49-50

In addition to the remarks set forth above regarding claim 5 (from which claims 49 and 50 depends), Applicant respectfully submits the following remarks. The Office rejected claim 49 by repeating the claim language of claim 49 and citing seven different columns in Ogg (12, 15, 16, 20, 11, 12 and 18) with no further elaboration. Similarly, the Office rejected claim 50 by repeating the claim language of claim 50 and citing six different columns in Ogg (15, 16, 11, 12, 20 and 18) with no further elaboration.

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This rejection lacks sufficient specificity to understand the position of the Examiner. MPEP §706 indicates that "The goal of examination is to clearly articulate any rejection early in the prosecution process so that the applicant has the opportunity to provide evidence of patentability and otherwise reply completely at the earliest opportunity." Therefore, Applicant respectfully submits that the Office has not met the burden for establishing a *prima facie* case of obviousness. Accordingly, Applicants respectfully submit that the rejection of claims 49 and 50 under 35 U.S.C. §103 has been overcome.

New Claims

Applicant has added new claims 51-54. Applicant respectfully submits that no new matter has been added and that claims 51-54 are patentable over the cited art.

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Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2103 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

SELIM AISSI

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Date 3-26-07

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